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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/248,515 02/08/99 SOSIN

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EXAMINER

BLAU, S

ART UNIT	PAPER NUMBER
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3711

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DATE MAILED:

09/08/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>09/248,515</b>	Applicant(s) <b>Sosin</b>
	Examiner <b>Stephen Blau</b>	Group Art Unit <b>3711</b>

Responsive to communication(s) filed on Jun 27, 2000.

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) 4, 11, and 13 is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-3, 5-10, 12, and 14-20 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit:

**DETAILED ACTION**

*Drawings*

1. The drawings of this application have not been reviewed by the Draftsman. Upon allowance of this case the drawings will be evaluated under 37 CFR 1.81.

*Information Disclosure Statement*

2. The information disclosure statement filed 06 July 1999 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the noted reference under Other Documents "U.S. Golf Association Rules" contains no date. It is uncertain whether this reference is prior art or not. It has been placed in the application file, but the information referred to therein for this specific reference has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

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***Claim Rejections - 35 USC § 112***

3. Claims 2-3, 5-10, 12, and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 is indefinite in that it discloses "the step of selecting". This step was not previously disclosed and as such there is insufficient antecedent basis for this limitation in the claims. The examiner recommends changing the wording to --... a step of selecting...--. Claim 9 is indefinite in that it discloses "the step of correlating". This step was not previously disclosed and as such there is insufficient antecedent basis for this limitation in the claims. The examiner recommends changing the wording to --... a step of correlating...--. Claims 9-10, 12, 14-16 are indefinite in that these claims claim a plurality of clubs with structure relating to a plurality of clubs (i.e. Claim 12 ...for increasing longer clubs...) yet the claim which they depend on claims a club. It is uncertain whether a plurality of clubs with different characteristics or a golf club is being claimed. Claims 3 and 5-8 are rejected for depending on a rejected base claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Muldoon.

Muldoon discloses a method of designing a golf club comprising the steps of determining a design loft of a club (in the form of determining a loft a conventional way, i.e. not taking into account differences in a golfer's grip and stance) and tailoring a lean angle of a club (in the form of personalizing the loft angle) based upon such determination and upon a swing characteristic of a golfer (in the form of a golfer's grip and stance (Col. 1, Lns. 44-59)).

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Toulon.

Toulon discloses a method of designing a golf club comprising the steps of determining a design loft of a club and tailoring a lean angle of a club based upon such determination and upon a swing characteristic of a golfer in the form of making minor adjustments in both lie and face (loft) angle of a club to achieve custom fitting to an individual player (abstract).

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Duclos.

Duclos discloses a method of designing a golf club comprising the steps of determining a design loft of a club and tailoring a lean angle of a club based upon such determination and upon a

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swing characteristic of a golfer in the form of adjusting the loft angle for physical characteristics and stance of a particular golfer.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-3, 9-10, 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muldoon in view of Hansen.

Muldoon discloses a swing characteristic of an effective loft in the form of different golfers using the same club may achieve different lofts based upon a golfer's grip and stance (Col. 1, Lns. 44-59). Muldoon does not disclose a tailored club with a difference between a design loft and an effective loft but clearly a golfer will grip, stand and swing a club such that a suitable difference will be required in which having a design and effective loft being zero, and having a lean angle greater than 3 and less than 10 degrees are included.

Muldoon lacks a step of selecting a length, tailoring a lean angle based upon a length, a plurality of clubs, a tailoring step of correlating a location of a ball in a stance of a golfer across a

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plurality of clubs, and having a design and effective loft being zero. Hansen discloses the practice of positioning a ball progressively rearwardly from a front of a golfer's stance as a golfer progresses from drivers to short irons (Col. 1, Lns. 39-61). Clearly the majority of sets of clubs have a length of a club progressively decreasing from a driver to a short iron. In view of the patent of Hansel it would have been obvious to modify the method of designing a golf club of Muldoon to include a step of selecting a length of a club in tailoring a lean angle in order to accommodate a golfer who has a practice of positioning a ball progressively rearwardly from a front of a stance when progressing from drivers to short irons with a grip location staying constant and still achieve the desired loft for a particular club. In view of the patent of Hansel it would have been obvious to modify the method of designing a golf club of Muldoon to include a step of correlating a location of a ball in a stance of a golfer across a plurality of clubs in tailoring a lean angle in order to accommodate a golfer who has a set of clubs with different lengths from a driver to a short iron and positions a ball at different locations with respect to a stance and a grip location constant for a golfer who still desires to achieve the desired loft for a particular club. In addition, it would have been obvious to modify the method of Muldoon to include a plurality of clubs in order to meet the particular habits of an individual golfer for each club in a set of clubs.

It would have been obvious to modify the method of designing a plurality of clubs of Muldoon to have a design and effective loft being zero in order to accommodate a golfer who positions his grip such that the shaft of a club is in the vertical with respect to a vertical plane in the direction of intended ball flight. Finally it would have been obvious to modify the method of

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designing clubs to have a lean angle greater than 3 and less than 10 degrees in order to make an effective loft the desired loft for a golfer who tends to hold his grip forward of the ball position at impact.

10. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muldoon in view of Hansen as applied to claims 2-3, 9-10, 14-20 above, and further in view of Schmoll.

Muldoon discloses determining an effective loft based upon a trajectory of a ball struck in the form of a golfer achieving a certain degree of loft when using a specific club (Col. 1, Lns. 51-59).

Muldoon lacks using an automated observing system, an image forming device, and slow motion capability. Schmoll discloses using an automated observing system (Col. 3, Lns. 33-66), an image forming device, and slow motion capability (Col. 4, Lns. 57-67) in form of a digital camera used to determine lie at impact which is then used in determining modifications made to a club during a tailoring process (Col. 5, Lns. 25-45) in order to have accuracy (Col. 2, Lns. 35-42). In view of the patent of Schmoll it would have been obvious to modify the method of designing a club to include using an automated observing system, an image forming device, and slow motion capability of a digital camera to determine effective loft in order to ensure accuracy for the fitting process in adjusting the loft angle.

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11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muldoon in view of Hansen as applied to claims 2-3, 9-10, 14-20 above, and further in view of Douglass.

Muldoon lacks a correlating step of locating a ball progressively backward in a stance for increasingly longer clubs. Douglass discloses step of locating a ball progressively backward in a stance for increasingly longer clubs in the form that the tee locator (Ref. No. 102b) will progress backwards as longer clubs are used (Fig. 1). In view of the patent of Douglass it would have been obvious to modify the method of designing clubs of Muldoon to have a correlating step of locating a ball progressively backward in a stance for increasingly longer clubs in tailoring a lean angle in order to accommodate a golfer who has a set of clubs with different lengths from a driver to a short iron and positions a ball progressively backward in a stance for increasingly longer clubs who still desires to achieve the desired loft for a particular club.

### *Conclusion*

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (703) 308-2712. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the examiner is unavailable you can contact his supervisor Jeanette Chapman whose telephone number is (703) 308-1310. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858.

9/5/00

*Steve Blau*